

ABSTRACT OF THE DISCLOSURE

The invention relates to a holographic viewing device that enables a bright reconstructed pattern to be viewed in place of light sources in a scene while a spot
5 due to zero-order transmitted light is kept unnoticeable, and a computer-generated hologram for the same. The invention provides a holographic viewing device comprising a frame and a computer-generated hologram fitted in the frame. The computer-generated hologram is constructed as
10 a transmission Fourier transform hologram. The computer-generated hologram comprises minuscule cells having pitches δ_x and δ_y with a reconstruction image area defined by a range of spreading of \pm first-order diffracted light of given wavelength from a diffraction grating having
15 grating pitches $2\delta_x$ and $2\delta_y$ that are twice as large as said pitches of cells, and an input image pattern 35 reconstructed at that wavelength is recorded in the computer-generated hologram in such a way that a light portion 36 of the input image pattern overlaps the center
20 of the reconstruction image area.